

relevant to the elected species. Accordingly, Applicant respectfully requests consideration and examination of these claims.

Rejection under 35 U.S.C. § 112

Claim 44 has been rejected under the second paragraph of 35 U.S.C. § 112 as being indefinite.

Claim 44 has been amended to further clarify additional aspects of the present invention. Specifically, claim 44 has been amended to clarify that in some embodiments, the invention can further comprise the step of adding a second corrosion inhibitor. No new matter has been added and support for the amendment can be found throughout the specification.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 112.

Rejections under 35 U.S.C. § 102

Claims 17, 18, 40-44, 46, 49, 54, 55, and 57 have been rejected under 35 U.S.C. § 102 as being anticipated by Goudiakas et al., U.S. Patent No. 6,120,619 (the '619 patent).

Claims 46, 47, 49, 52, 54, 56, and 57 have been rejected under 35 U.S.C. § 102 as being anticipated by Derule et al., U.S. Patent No. 5,814,247 (the '247 patent).

Claims 46 and 49 have been rejected under 35 U.S.C. § 102 as being anticipated by European Patent Application Publication EP 0504621 (the EP 504621 application).

And, claims 46, 47, 49, and 54 have been rejected under 35 U.S.C. § 102 as being anticipated by International Application Publication WO 89/08728 (the WO 89/08728 application).

The '619 patent teaches passivation of stainless steel by methanesulphonic acid and an oxidizing agent chosen from cerium, iron, molybdenum or vanadium oxides or salts, nitrites and persulphates. (The '619 patent at column 1, lines 56-68.) The '619 fails to teach determining an activity factor of the metal. The '619 patent also fails to teach monitoring an electrochemical noise of the metal. Thus, the '619 patent cannot anticipate independent claims 17 and 46.

The '619 patent also does not anticipate claims 18, 40-44, which depend from independent claim 17, as well as claims 49, 54, 55, and 57, which depend from independent claim 46, for at least the same reason.

The '247 patent teaches adding a water soluble salt of heptanoic acid and an oxidizing agent to prevent corrosion when cold-working steel sheets. (The '247 patent at column 2, line 66-column 3, line 2.) The '247 patent does not anticipate independent claim 46 because it fails to teach determining an activity factor or monitoring an electrochemical noise of the metal. The '247 patent also does not anticipate claims 47, 49, 52, 54, and 57, which depend from independent claim 46, for at least the same reason.

The EP 504621 application teaches utilizing a main (primary) passivating agent of oxygen in carbon dioxide with a second auxiliary agent of ozone to passivate metal surfaces. (The EP 504621 application at page 3, lines 2 *et seq.*) The EP 504621 application does not anticipate independent claim 46 because it does not teach monitoring an electrochemical noise of the metal. The EP 504621 application also does not anticipate dependent claim 49, which depends from claim 46, for at least the same reason.

The WO 89/08728 application teaches creating an oxide layer on a metal surface by increasing the redox potential of a corrosive liquid by the addition of a suitable oxidizing agent such as H_2O_2 , $NaHO_2$, O_2 , O_3 , $NaNO_2$, and $KmNO_4$. (The WO 89/08728 application at pages 2-3.) The WO 89/08728 application does not anticipate independent claim 46 because it does not teach monitoring an electrochemical noise of the metal. The WO 89/08728 application also does not anticipate claims 47, 49, and 54, which depend from independent claim 46, for at least the same reason.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102.

Rejections under 35 U.S.C. § 103

Claims 17-19, 40-44, and 55 have been rejected under 35 U.S.C. § 103 as being obvious over the '247 patent.

Claims 45, 50, 51, and 53 have been rejected under 35 U.S.C. § 103 as being obvious over the '247 patent, in view of any one of Freese et al., U.S. Patent No. 5,575,920 (the '920 patent), Chen et al., U.S. Patent No. 4,913,822 (the '822 patent), or Kessler et al., U.S. Patent No. 5,866,013 (the '013 patent).

Claims 19 and 47 have been rejected under 35 U.S.C. § 103 as being obvious over the '619 patent.

Claims 45, 50, 51, 53, and 56 have been rejected under 35 U.S.C. § 103 as being obvious over the '619 patent in view of any one of the '920 patent, the '822 patent, or the '013 patent. Claim 52 has been rejected under 35 U.S.C. § 103 as being obvious over the '619 patent in view of the '247 patent.

Claims 17-19, 44, 47, and 54 have been rejected under 35 U.S.C. § 103 as being obvious over European Patent Application Publication EP 0504621.

Claims 52, 56, and 57 have been rejected under 35 U.S.C. § 103 as being obvious over European Patent Application Publication EP 0504621 in view of the '247 patent.

Claims 50, 51, and 53 have been rejected under 35 U.S.C. § 103 as being obvious over European Patent Application Publication EP 0504621 in view of any one of the '920 patent, the '822 patent, or the '013 patent.

Claims 17-19, 40-44, 50, and 51 have been rejected under 35 U.S.C. § 103 as being obvious over International Application Publication WO 89/08728.

Claims 52, 56, and 57 have been rejected under 35 U.S.C. § 103 as being obvious over International Application Publication WO 89/08728 in view of the '247 patent.

And, claims 45 and 53 have been rejected under 35 U.S.C. § 103 as being obvious over International Application Publication WO 89/08728 in view of any one of the '920 patent, the '822 patent, or the '013 patent.

Applicant respectfully disagrees that claims 17-19, 40-45, 47, and 50-57 would have been obvious over the cited references because there is no *prima facie* case of obviousness.

Independent claim 17 would not have been obvious over the teaching of the '247 patent because it fails to teach, suggest, or provide any motivation for a method of controlling corrosion comprising a step of determining an activity factor of the metal. For at least the same reason, claims 18-19 and 40-44, which depend from independent claim 17, would also not have been obvious. The '247 patent also fails to teach, suggest, or provide any motivation for a method of inhibiting corrosion comprising a step of monitoring an electrochemical noise of the metal, as recited in independent claim 46. Thus, dependent claim 55, which depend from independent claim 46, would not have been obvious over the teaching of the '247 patent.

Further, none of the '920, the '822, or the '013 patents teaches, suggests, or provides any motivation for a method of controlling corrosion comprising a step of determining activity factor. Thus, dependent claim 45, which depends from independent claim 17, would not have been obvious over the teaching of the '247 patent in combination with the teaching of any of the '920, the '822, or the '013 patents. Likewise, none of the '920, the '822, or the '013 patents teaches, suggests, or provides any motivation for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise. Thus, dependent claims 50, 51, and 53, which depend from independent claim 46, would not have been obvious over the teaching of the '247 patent in combination with the teaching of any of the '920, the '822, or the '013 patents.

The '619 patent fails to teach, suggest, or provide any motivation for a method of controlling corrosion comprising a step of determining activity factor or for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise. Thus, dependent claims 19, which depends from independent claims 17 and 46, respectively, would not have been obvious over the teaching of the '619 patent.

Like the '247 and '619 patents, the EP 504621 and the WO89/08728 applications fail to teach, suggest, or provide any motivation for a method of controlling corrosion comprising a step of determining activity factor, as recited independent claim 17. These references also fail to teach, suggest, or provide any motivation for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise, as recited in independent claim 46. Thus, dependent claims 18-19 and 40-44, which depend from independent claim 17, would also not have been obvious

over the teaching of any of these references. And, dependent claims 47, 50, 51, and 54, which depend from independent claim 46, would also not have obvious for at least the same reasons.

Similarly, dependent claims 45, 50, 51, and 53 would not have been obvious over the teaching of the '247 patent in view of the teaching of any one of the '920, '822, or '013 patents because none of these references teaches, suggests, or provides any motivation for a method of controlling corrosion comprising a step of determining activity factor or for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise.

Dependent claims 52, 56, and 57 would not have been obvious over the teaching of any of the EP 504621 application in combination with the '247 patent because none of these teach, suggest, or provide any motivation for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise.

Dependent claims 50, 51, and 53 also would not have been obvious over the teaching of any of the EP 504621 application in combination with any of the '920, '822, or '013 patents because none of these teach, suggest, or provide any motivation for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise.

And, dependent claims 45 and 53 would not have been obvious over the teaching of the WO 89/08728 application in combination with any of the '920, '822, or '013 patents because none of these teach, suggest, or provide any motivation for a method of inhibiting corrosion comprising a step of monitoring electrochemical noise.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103.

CONCLUSION

This application is in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this preliminary amendment, that the application is not

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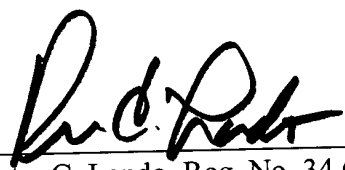
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in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 500214.

Respectfully submitted,
Roy Martin, Applicant

By: 
Peter C. Lando, Reg. No. 34,654
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Telephone: (617) 720-3500

Docket No. S01364.70023.US
Date: 03/7/03
x03/03/03

MARKED UP CLAIMS

Please amend the claims as shown.

17. (Amended) A method of controlling corrosion of a surface of a metal comprising:
passivating the surface of the metal with an anionic oxidizer; [and]
flushing the anionic oxidizer from the surface of the metal[.]; and
determining an activity factor of the metal.
43. (Amended) The method of claim 17, wherein [there is no further step of adding another corrosion inhibitor]the anionic oxidizer consists essentially of hydrogen peroxide.
44. (Amended) The method of claim 17, further comprising the step of adding a second corrosion inhibitor to an electrolyte exposed to the surface of the metal.
46. (Amended) A method of inhibiting corrosion of a metal comprising:
supplying an oxidizer to a surface of the metal; [and]
inducing flash formation of an oxide layer on the surface of the metal[.]; and
monitoring an electrochemical noise of the metal.